NEW YORK STATE DEPARTMENT OF TRANSPORTATION
TECHNOLOGY SOLICITATION CONSTRUCTION DIVISION

GPS Survey Equipment Instrument
REQUEST FOR INFORMATION #2014-43

DESCRIPTION:

This is not a Request for Proposals. The New York State Department of Transportation (NYSDOT) hereby issues this “Request for Information” to determine the current industry standards and technology advancements related to survey equipment for use on the Department’s Capital Program projects. Experienced and interested firms are invited to submit written responses, including product literature, published price sheets, qualifications, and additional information to Barbara Sonenberg, NYSDOT Contract Management Bureau at the mailing address listed below.

1) Introduction
   A. Purpose
      NYSDOT is interested in information pertaining to GPS survey equipment for data collection purposes on highway construction projects. NYSDOT is exploring providing its Regional staff with GPS survey equipment, including all the necessary hardware, software, training, maintenance, and support necessary to collect data on the Department’s capital projects. NYSDOT is considering acquiring approximately forty six (46) GNSS receivers, eleven (11) Robotic Total stations, eleven (11) digital levels, eleven (11) Multi-stations as well as two (2) laser scanners (terrestrial LIDAR) with all the necessary software, accessories, training and support. These numbers are estimated for RFI information gathering purposes only.

   B. Background
      The current equipment contract provides equipment for use on projects for a variety of purposes including, but not limited to, verification of asset locations, verify layout of key features, area/length/surface information, bridge haunches, surface data collection for comparison to provide accurate volume calculations, as well as create accurate As-Built information and plans, among other purposes The current contract expires in September of 2015 and NYSDOT is in the pre-procurement planning stages, preparing for a possible new RFP.

2) Information Being Sought
   Please include any additional information or what NYSDOT needs to know about the following items in your RFI response.
   A. Equipment capable of meeting the required standards and procedures in the NYSDOT Land Surveyors Standards and Procedures manual which may be accessed via: https://www.dot.ny.gov/divisions/engineering/design/design-services/land-survey/repository/LSSPM09.pdf
B. GNSS Receivers which provide a seamless flow of field data from the Data Collection software to Bentley’s InRoads and Autodesk Civil 3D software’s.

C. GNSS rover packages which include:
   - A Geodetic GNSS receiver with integrated antenna, accessory equipment for surveying, and planning/post processing software.
   - GNSS rovers that include a CDMA modem for connecting to the NYSDOT continuously operating reference station (CORS) Network (NYSNet) and capable of using RTCM Version 3 MAC Network RTK (NRTK) corrections.
   - GNSS receivers that include a license free radio modem, with a minimum of 2 mile range, to enable use of RTK on a local project using a local base station.

D. Total Stations which meet the criteria for performing at least second order class II traversing as defined in the Standards and Specifications for Geodetic Control *Networks by the Federal Geodetic Control Committee, 1984.

E. Total Station Packages which include a fully robotic total station instrument with reflectorless EDM technology, a separate hand-held data collector, software, training, tripods and various miscellaneous items, as discussed below.

F. Data collectors provided for the total stations and GNSS receivers are the same EOM (make and model) and use the same data collection software. Each data collector is capable of collecting data from the total station and/or the GNSS receiver.

G. GNSS receivers capable of being integrated on the total station prism pole rod to allow the data collector to collect either total station or GNSS data in the same job.

H. Total station package which include all necessary hardware and software to integrate the GNSS receiver on the prism pole.

I. Digital Level Packages which provide a complete seamless flow of field data from the Digital Level to the processing software and into Bentley InRoads and Autodesk Civil 3D software. The Digital Level package needs to meet the criteria for performing at least second order class II leveling as defined in the AInterim FGCS Specifications and Procedures to Incorporate Electronic Digital/Bar Code Leveling Systems as of this time? Digital Level Package which also includes a Digital Level, four (4) meter sectional dual face polymer staff, software, training, tripods, and various miscellaneous items, as discussed below.

J. Laser scanners which include tripods, targets, carrying cases, software, licenses and accessories necessary to perform laser scanning surveys and to process data to deliver into Bentley Microstation mapping, Bentley InRoads DTM and Autodesk Civil 3D.

K. Can maintenance, training and support be provided for all supplied hardware, software and accessories? Can maintenance provided free of charge for any item if it fails due to normal use?

L. Can all of these packages be provided to DOT by a single vendor who will demonstrate and guarantee that hardware and software components function together and meet DOT’s requirements?

M. Are you a company, manufacturing and providing the hardware and software, that has been in existence for a good amount of time, and has a proven product line?

3) Topics and Questions
   A. Equipment Lease or Purchase
a. NYSDOT is considering options as to how to procure the described equipment under the next GPS survey contract. The three options currently under consideration include having the vendor provide the equipment under the contract via either:
   i. Lease;
   ii. Purchase at a cost to us that is at or below the current OGS state contract rates and be reimbursed for the total cost at the start of the contract;
   iii. Purchase at a cost to us that is at or below the current OGS state contract rates and have the total cost be reimbursed via equal amortized costs over the term of the contract;

b. Would you be able to accommodate all three of the above options?

c. Is there an option that you would recommend—either one of those above or perhaps another method? Have you worked with other states and/or state agencies and, if so, please describe how they procured the equipment.

d. Please supply an estimate, to the nearest $50,000, for each item of interest listed below in Table 1 that you could accommodate. Each item includes all of the aspects for which NYSDOT is seeking additional information on regarding making a more informed potential purchase decision for fully operational construction survey support equipment and services needs.

e. If we determine that purchase is the best option, are you an officially designated vendor with the State of New York?

B. Delivery and Set-up

a. NYSDOT would like to have the equipment deployed, setup and fully operational prior to the completion date of the current contract. This will avoid a potential gap in available equipment to complete daily work and data collection. Would you be able to fulfill this request and how?
   i. NYSDOT would require the equipment be individually deployed to the Main Office and 11 Regions, setup and the software to be fully functional prior to equipment acceptance.
   ii. NYSDOT would supply the vendor with names and work locations where the equipment will be deployed, would you be able to assist with serial numbers and such for asset tracking?

C. Training

a. NYSDOT may request initial and annual training for use of the new equipment and software. Do you have any recommendations on how this will be handled? Do you recommend the vendor supply all training or a ‘train-the-trainer’ approach, or a combination of both? Are other training recommendations feasible? NYSDOT prefers to train its staff at its eleven Regional office locations (Region 1 is co-located with Main Office): what locational considerations do your recommendations entail?
   i. NYSDOT has internal travel restrictions that currently limit potential training to a maximum of three days at one time. How would you propose to accommodate the training requirements keeping within NYSDOT’s travel restrictions?
ii. Would training should encompass all the equipment, software supplied and available updates.

iii. Would the training content be made available to the trainees for use at a later date and how would you propose to deliver the material, i.e. handouts, electronic files, videos, etc.?
   1. NYSDOT employees do not have access to YouTube from state supplied computers; could they be provided to the Department for inclusion in our system (Public drive)?

D. Support
a. NYSDOT has construction projects that work 24/7; how would you propose to handle support requests, questions and calls, both during and after normal business hours (on all days of the week)?

b. Does your firm have a preferred service level agreement? Can you provide your SLA in your RFI response?

c. Does your firm rely solely on itself or on a network of resellers? Or are you a reseller and what limitations does that bring which NYSDOT needs to be aware of?

E. Maintenance and Repairs
a. As with any equipment and software, NYSDOT anticipates potential equipment repairs will occur and annual maintenance will be necessary to keep the equipment functioning properly. How does your firm normally meet these needs?

b. In situations where equipment needs to be recovered by the vendor for repair/replacement, does your firm have the ability to provide additional equipment as “loaners” to the same NYSDOT location during these “break-fix” instances? Is it further possible to provide loaner equipment to the same location within 48 hours of notification? Can your loaner be fully functional at the time of pick-up?

c. How does your firm address repairing non-working equipment? Please describe a typical fulfillment of this kind of request?

d. Would you have fully functional standby equipment ready to be delivered directly to the required field office within 48 hours from the time the defective equipment is identified (official ticket/confirmed ticket)?

e. Would you have fully functional standby equipment ready to be delivered directly to the required field office within 24 hours from the time the defective equipment is identified (official ticket/confirmed ticket)?

F. Software: Seamless Data Flow: NYSDOT is interested in survey equipment that provides a seamless flow of data from the total stations, GNSS receivers, digital levels and multi-stations into both Bentley Inroads and Autodesk Civil 3D software systems following the NYSDOT Standards; as well as a seamless flow of data from Bentley inroads and Autodesk software’s back into the survey equipment for construction stakeout and inspection. Seamless flow means that no reformattting of the data is necessary. The raw data format should be capable of being directly transferred to and from Bentley Inroads and/or Autodesk Civil 3D. Please inform
NYSDOT if you are able to provide these services and if so, describe how you would accommodate.

Additional software questions:
1. What add-on software is necessary to accommodate seamless data flow?
2. Will upgrades be available as technology advances or changes over the next 6 years? How would your firm make these upgrades available?
3. Will NYSDOT need support from its Information Technology Services branch to install and operate any of your software into NYSDOT’s current IT environment?

G. Accessories
What accessories would you suggest to be included to fulfill the RFI intent? Examples are listed below. Would these be considered options or required equipment (based on NYSDOT’s construction site survey business practices)?
   i. High gain antenna
   ii. Repeaters for base/rover setups
   iii. Large anti glare screens on the data collectors
   iv. Additional hard drives and/or memory
   v. Mini prisms and mini prism poles
   vi. Extra batteries
Please provide any available product information about any recommended accessories, including service, maintenance and/or other need-to-know information about using accessories in a responsible, contractual manner.

H. Licenses
NYSDOT may require that a vendor provide software licenses necessary to make all equipment fully functional. NYSDOT would like to know what licenses, if any, will be required for each piece of equipment mentioned in this RFI.

I. Payment
What is your preferred method of payment and do you have differing methods of payment for the above mentioned equipment and services? Do you have any alternative payment schedules and/or methods? Would you be interested in entering into a contract with a five year term? Would you be adverse to a quarterly payment method with quarterly costs for delivering everything under contract (equipment, training, support, etc)?

Please provide a ballpark Lease vs. Purchase cost comparison to the nearest +$50,000 for the following:
Table 1

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<thead>
<tr>
<th>Item</th>
<th>Purchase Price</th>
<th>Lease Price</th>
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<tbody>
<tr>
<td>50 GNSS receivers</td>
<td></td>
<td></td>
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<tr>
<td>25 Robotic Total Stations</td>
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<tr>
<td>25 Digital Levels</td>
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<tr>
<td>25 Multi-stations</td>
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<tr>
<td>2 Laser Canners (terrestrial LIDAR)</td>
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Does your business model support dividing the purchase price over 20 payments? Would NYSDOT pay more for this payment method?

If lesser quantities of items are ordered, would the price per item change? If so, by what amount?

RESPONSES:

Interested firms are encouraged to submit a notice of interest on company letterhead along with a brochure and/or a detailed description of such product(s). The information furnished should document the general functionality of the equipment and software and how it might potentially meet the minimum requirements of a large State Transportation Agency such as NYSDOT. Notice of Interest should be limited to no more than 1-2 pages in length: include descriptive literature and price sheets. The Department may subsequently invite a representation of firms to provide a one to two hour demonstration for informational purposes. The Department may also ask follow-up questions after receipt of your response.

Please include in your response:
- Anticipated standard COTS product licensing requirements.
- Representative timeline for typical product implementation and roll out.
- Representative cost estimates (+/-$50,000) for all equipment, hardware, software, maintenance, training and support.
- Representative staffing to fulfill training/support.

Note that this IS NOT a Request for Proposals, but rather an invitation to inform the Department of the current capabilities of survey equipment and accessories available in the market. Information obtained may be used to develop a needs requirement upon which future procurement might be based. Your contact information will be retained and should NYSDOT opt to procure these services, you will receive notice of NYSDOT’s intention to procure. NYSDOT is not responsible for reimbursing any costs involved in preparation and submission of any response to this RFI.

QUESTIONS:

All questions regarding the NYSDOT Survey Equipment for Construction Request for Information must be submitted in writing, via e-mail preferably, to Barbara.Sonenberg@dot.ny.gov. Answers to questions shall be released to NYSDOT’s RFI
2014-43 website with all parties expressing interest/submitting receiving an e-mail alerting them to the Q&A release. NYSDOT reserves the right to extend the RFI response due date after consideration of RFI questions.

Question submittal due date: September 8, 2014 COB
Answers to Questions published on or before: September 15, 2014 COB

RESPONSE DUE DATE:

Submissions are requested by 4:00 PM E.S.T., Tuesday, September 25, 2014. Please address them to:

   Mr. William A. Howe,
   Director, Contract Management Bureau
   New York State Department of Transportation
   50 Wolf Road, Sixth Floor
   Albany, New York 12232
   Attention: Barbara Sonenberg RFI #2014-43